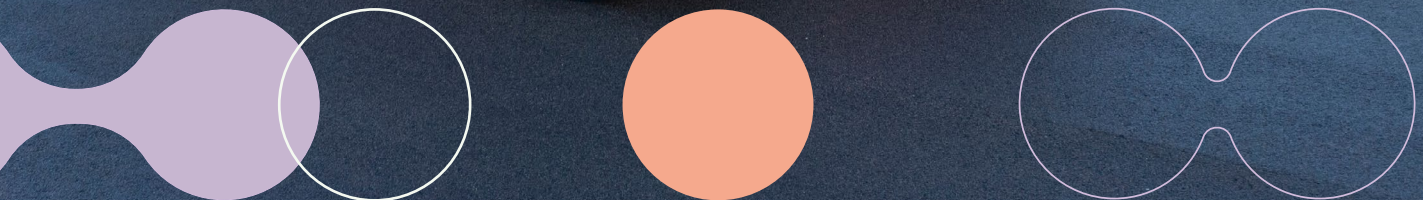




Electric Reachstacker

ERG450-700 Range



Start your decarbonisation journey today

Kalmar's electrically powered reachstacker can help improve the eco-efficiency of your operations while maintaining the highest levels of productivity and safety. With a range of modular battery options and charging solutions, we can work with you to design a solution that will deliver for your business.

Eco-efficiency built in

Being electrically powered, your reachstacker will produce zero carbon emission at source, making them cleaner and safer to operate. You can cut your carbon emissions even further by using green energy sources where available or start to generate and use your own power. Getting an electrically powered reachstacker is only the start of your eco-efficient journey. One that we will be with you every step of the way.

Productive by nature


With an electric powered driveline your drivers will notice a big difference with faster and smoother acceleration and more responsive handling while still being able to lift up to 70 tonnes efficiently and safely. Less time will be spent servicing and maintaining your electrically powered reachstacker as it has less moving and mechanical parts, plus you will be able to keep it running optimally within a broader range of temperatures with Kalmar's Thermal Management System fitted as standard.

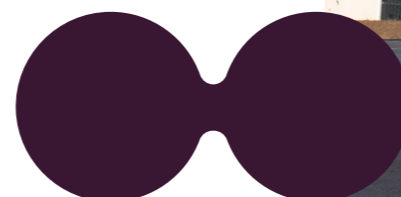
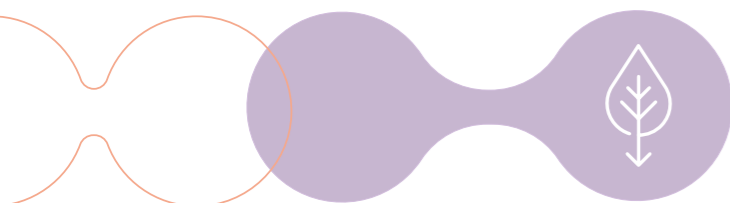
Safety in focus

Kalmar's range of electrically powered reachstackers offer highly responsive handling and superior visibility from the cabin, helping to keep your driver safe and in control at all times. Your drivers will also benefit from reduced cabin noise and vibrations as our electrically powered reachstacker's driveline is extremely quiet and smooth. There are also a large range of safety options available that can further enhance the safety of your equipment and the drivers operating them.

For complete peace of mind

All Kalmar Electric Reachstackers come with a 1 year/2000 hour warranty. Batteries are covered for up to 5 years. Optional additional warranties of up to 10 years for the machine and 5 years for the charger are available for complete peace of mind.*


The Kalmar electrically powered reachstacker can help improve the eco-efficiency of your operations while maintaining the highest levels of productivity and safety.



*Charging solutions come with dedicated warranties, which may vary by equipment.

Our electric portfolio

Kalmar's electrically powered reachstacker is part of our complete range of eco-efficient solutions, which include terminal tractors, forklifts and empty container handlers.

Battery and Charging Monitoring

Real-time status on battery capacity and health along with charging usage and timing allows for optimised operational planning and usage.

MyKalmar INSIGHT

MyKalmar INSIGHT gives you the ability to monitor your fleet's operational status in real time, no matter what type of equipment you operate. Chargers purchased through Kalmar are fully integrated, giving you a single, unified view of your operations.

Additional Energy Storage

You can use additional energy storage units to capture excess power that you may have produced to use at a later time when required instead of buying from the grid.

Empty Container Handler

Kalmar's range of electrically powered empty container handlers can operate for up to two full shifts on a single charge, depending on work cycle, lifting loads up to 11 tonnes and placing them up to 8+1 high with our double stacker.

Forklift Trucks

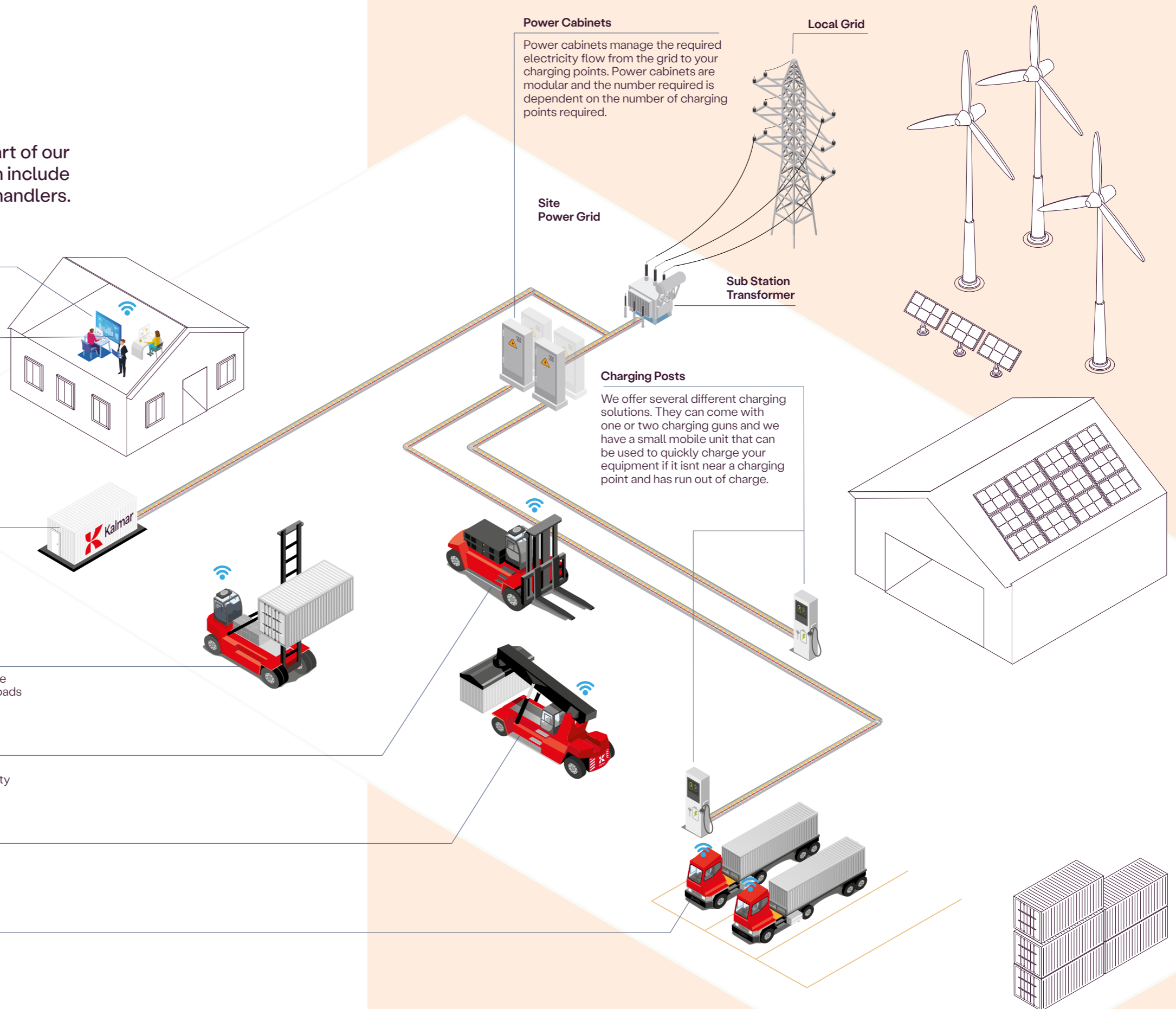
Kalmar's electrical powered forklifts offer a broad range of lifting capacities from 5 to 33 tonnes, a choice of battery solutions and can be used for a variety of material handling applications.

Reachstackers

Kalmar offers a choice of electrically powered reachstackers with a wide range of lifting applications, battery solutions and a lifting capacity up to 70 tonnes.

Terminal Tractors

Kalmar's T2 EV electrically powered terminal tractor has been designed specifically for distribution centres and container terminals. There is a choice of different battery solutions designed to meet your operational requirements.



The power is in your hands



Modular by design

Batteries and chargers are a big part of your overall investment making it critical that you get a solution that is matched to your operational requirements, which is why Kalmar has taken a modular approach to our battery and charging solutions.

A range of charging options is available to suit different power supplies and operational needs, along with different Lithium-ion batteries capacities to choose from. All our battery solutions are backed by a 5-year or 10,000-hour warranty (whichever comes first).

Kalmar can help you work out which battery solution and charging option is right for your business based on your current work cycle and the opportunities you have to top-up your battery during a shift.



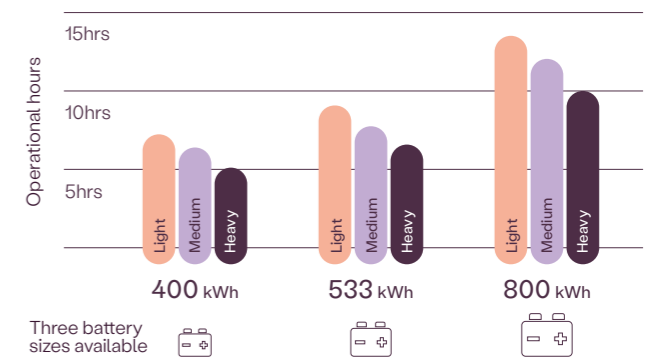
Eco-efficient by nature

By combining a highly efficient electrically powered motor, with direct drive hydraulics you get a driveline combination that will deliver on power and productivity while producing zero carbon emissions at source.

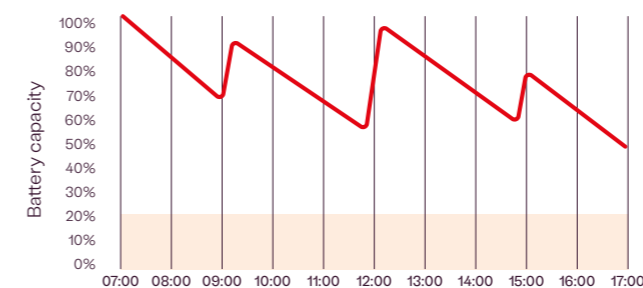
The complete system has been designed to minimise energy losses. With improved battery lifetime, performance and monitoring, energy losses have been minimised allowing for long charging intervals. Regenerative power from the braking system returns power to the batteries, further enhancing the overall efficiency of the system.

There are four different Lithium-ion batteries to choose from which can be quickly opportunity charged during operational hours or fully charged overnight.

Operational hours per drive cycle

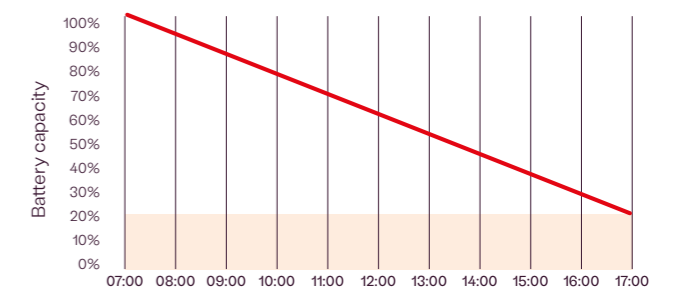


With opportunity charging



With the 400 kWh battery and a 350 kWh charger you can easily run a 10 hour shift using only scheduled breaks for opportunity charging (based on average energy consumption of 58 kWh/h)

Without opportunity charging



With the 800 kWh battery you can run non-stop operations for 11 hours before having to charge (based on average energy consumption of 58 kWh/h)

Productive in extreme weather conditions

All of Kalmar's Electric Reachstackers come fitted with a Thermal Management System which keeps your battery operating at an optimal temperature over a broad range of external temperatures.

By linking the Thermal Management System to the Climate Control System, the energy used to heat or cool the operator's cabin is reduced. Not only keeping your drivers comfortable, but improving overall efficiency of the machine.

Thermal Management System

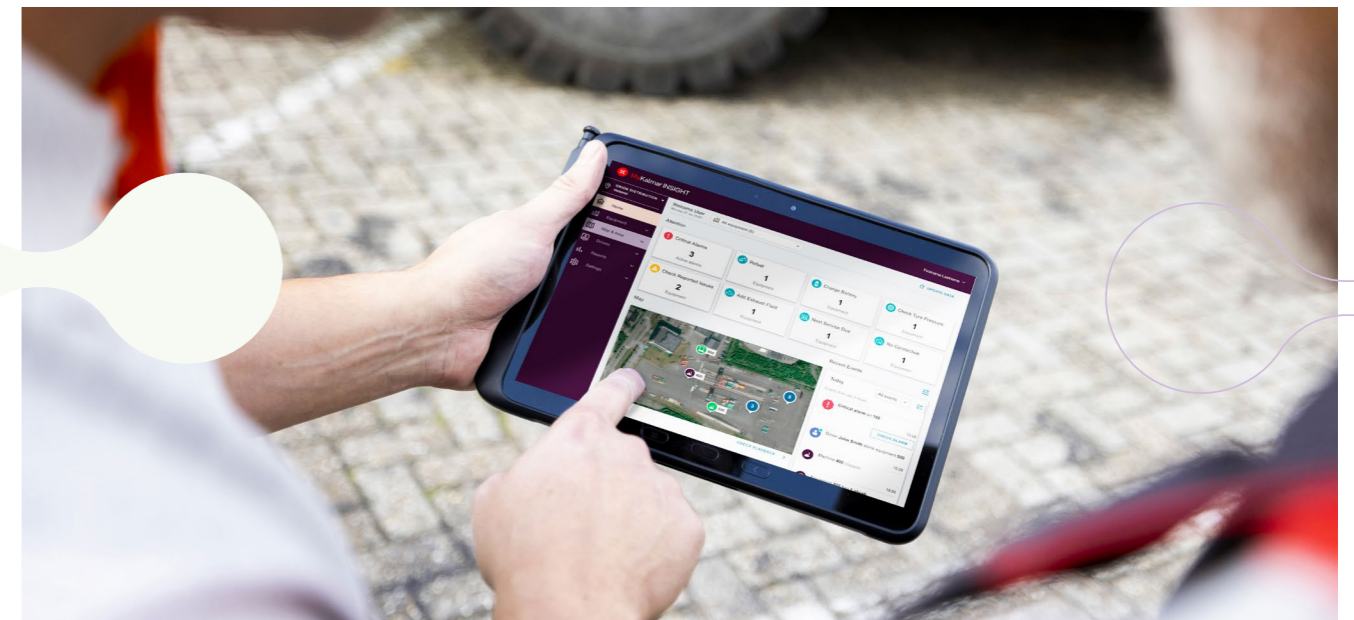


Managing your power

Kalmar's Battery Monitoring System continually monitors the voltage, temperature, coolant and current flow of your battery solution to ensure that it operates optimally over its lifetime. This system also controls the charging of the batteries by redirecting recovered energy back into the battery packs making sure you are using the power available as efficiently as possible. Data from the Battery Monitoring System is displayed in Kalmar Insight allowing you to secure optimal battery use to ensure warranty conditions are met and the longest possible lifetime of the battery can be obtained.

Extra safe

With any electrically powered high voltage system you need to be extra safe which is why we have encased and shielded all high voltage lines. Should any connection be interrupted the whole system will automatically shut down keeping your team safe. Knowing how to work with high voltage power sources is extremely important which is why Kalmar has specifically designed a High Voltage training course to enhance the skills of your workers and keep them extra safe.



Powertrain

DRIVETRAIN	Drive axle, manufacturer - type	Kessler D102 - Differential and hub reduction			
	Drive motor, manufacturer - type designation	BoschRexroth - EMS1H 13E60			
	Drive motor power, rated continuous - max	kW	133 - 358		
	Transmission, manufacturer - type designation	BoschRexroth / eGFZ9275 1-speed			
	Load handling motor, manufacturer - type designation	BoschRexroth / EMS1H 20B20			
	Load handling motor capacity, rated continuous - max	kW	130 - 242		
	Auxiliary motor, manufacturer - type designation	BoschRexroth / EMS1H 13B15			
	Auxiliary motor capacity, rated continuous - max	kW	22 - 44		
Energy consumption	kWh/h	40 - 68			
BATTERY	Battery type	Lithium-ion			
	Battery nominal capacity	kWh	400	533	800
	System nominal voltage	V	565 - 754		
	Charging inlet capacity, max	kW	350		
	Charging inlet standard	CCS2			

* First life, meaning until 80% capacity is left in the battery.




Safety fitted as standard


For Kalmar, the safety of your drivers and maintenance staff is of critical importance, which is why our machines come with many more safety features fitted as standard than other machines available in the market.


The features listed here come fitted as standard on all Kalmar machines. You can enhance your employees' safety further by fitting your machine with our additional safety options listed on the following pages.


All Kalmar equipment is compliant with EN 1175:2020.


At Kalmar, the safety of people working with our machines is always at the top of our minds, which is why meeting global safety standards is important to us. The safety standard EN 1175:2020, which sets the electrical and electronic component standards for industrial trucks, has been updated to improve the safety of these machines while in operation. This update is valid from April 2023. All Kalmar counter balanced machines, including reachstackers, empty container handlers and forklifts have been updated to meet this new standard to ensure that working with a Kalmar machine is as safe as it can be.


 **2-point seat belt.** Ensures that your driver is safe and secure while operating our equipment, all Kalmar machines are equipped with an adjustable 2-point seat belt system.


 **3-point Contact System.** Makes sure your drivers are safe when entering or exiting our equipment. All machines are fitted with steps and handles to ensure they can always maintain three points of contact with the vehicle, helping to keep them safe and preventing incidental injuries.


 **Double brake pedals.** The right-hand-side brake pedal is intended for emergency braking, particularly useful for operators familiar with traditional automotive controls, allowing the driver to choose which foot to use, providing more flexibility.


 **Steps with anti-slip protection.** To reduce the risk of your driver slipping or falling on our equipment, all entering and exiting points are fitted with non-slip surfaces giving them extra grip, so your drivers stay safe.


 **Control System.** All our equipment is fitted with an electronic Control System for monitoring the machine's different functions while in operation, helping to keep your driver fully informed at all times with up-to-date Operating, Event Controlled and Error Code information.


 **Operating information.** Our equipment's Control System provides several operating information menus, which give your operator and maintenance personnel a great insight into the on-going performance of the machine, allowing them to keep it running optimally.


 **Event controlled information.** Provided through the Overload Protection System to warn the driver through the equipment's Control System if their load exceeds the specified safety limits.


 **Error code information.** Should there be any issue with your equipment while in operation, the electronic control system will immediately alert your driver with the appropriate error code, so they know exactly what is going on and can take appropriate action.


 **Display.** Cabins are fitted with an easy to read display which keeps your drivers fully aware of the machine's on-going performance and any maintenance actions that need to be taken.

 **External reverse light.** For the safety of others, all our equipment is equipped with external reversing lights that help the driver keep everyone informed that they are moving backwards.

 **LED lights.** These come fitted as standard on all our equipment, providing better visibility when working in reduced light.


 **Emergency Stop Switch.** Manually activated to immediately stop all power transmission and load handling functions in emergencies. Cuts power to both the hydraulic and electric drive systems for safety.


 **Neutral Start Interlock.** It prevents the machine from starting unless all drive and load handling controls are in a neutral position. This protects the driveline and ensures there's no unintended movement when powering on the machine.

 **Operator Presence Detection System.** Maintains safety for both the driver and pedestrians, as all our equipment is fitted with an alarm or visual indicator that comes on automatically if:


- the seat belt requirement while driving is not met
- seat belt not fastened while in operation
- the driver leaves the driver's seat without engaging the parking brake.


The system includes a buzzer in the cab and visual warning lights. Additionally, if the driver leaves the seat while the machine is active, the electric drive is shut off and load-handling functions are disabled.


 **Protection against falling objects.** Cabin roof windows on all our equipment are fitted with high strength materials which can withstand heavy blows, helping to protect your drivers from falling objects.

 **Good visibility.** Kalmar cabins provide your drivers with excellent visibility, forwards, upwards, sideways and behind them to help them stay safe while in operation.

 **Anti-slip Protection Tape on fenders and tanks.** Anti-slip Protection Tape provides additional traction on fenders and tanks to reduce any slipping hazards for driver's and maintenance personnel while working on your Kalmar Reachstacker.

 **Reverse Camera System.** Knowing what is going on behind you is critical when reversing your machine, which is why they are all fitted with a high-resolution [1080p] cabin display screen and reversing camera.

 **Speed Limiter outside transport mode.** Makes sure your machine is always operating at a safe speed whenever operating conditions call for it, helping to reduce the risk of accidents and promoting safe, consistent operating practices.

 **Towing Coupling with removable pin.** Should something go wrong with your Kalmar Reachstacker we have made it safer to use both tow bars and tow slings making it quicker and easier to recover your machine.

More options

Kalmar has a range of options that make operating your equipment even safer.



Fire Suppression System. To protect your operator and machine from fire you can fit a Fire Suppression System* to your machine. The system utilises multiple spray nozzles that release a high pressure water mist where the fire has been detected from a re-chargeable water tank. This can be activated manually or automatically through an in-cabin temperature sensor.



Alcolock. To ensure that your driver is at their best when operating your equipment you can install an Alcolock system. This system makes sure that the driver meets alcohol blood level standards before being able to start the machine, much like a breathalyser.



Visual and Sound Alert Solutions. In work environments with limited sight, mixed traffic, and/or pedestrians in the vicinity, e.g., warehouses, lumber or container yards, safety can be maintained by ensuring that everyone is aware of equipment on the move. There is a choice of visual alert solutions such as rotating beacon, strobe flash, or blue spot safety light or audible alternatives such as a Reverse Alarm with beeping or white sound function.



Additional lighting. Extra lighting, particularly if you operate your machine at night, as you can bring greater operational visibility and safety for personnel working on the site. You can choose additional LED working lamps on specific positions.

Kalmar has a range of solutions that will help make your equipment more eco-efficient and sustainable.



Tyre Pressure Monitoring System. The integrated tyre pressure monitoring system provides the driver with constant updates on the pressure of each individually monitored tyre. This feature enhances safety and helps maintain optimal tyre conditions, preventing blowouts and ensuring consistent machine performance.



Reduced Steering Radius System. By reducing the overall steering radius of your reachstacker you will reduce wear and tear, extending the life of your tyres.



Radar Sensors for Object Detection. Working side by side with moving vehicles poses a safety risk, especially when reversing. The Reverse Warning System, a part of Kalmar EagleEye, helps protect your personnel by combining four rear sensors, a reversing camera, and an acoustic alert. Real-time visual and audio feedback is sent to an in-cabin display, helping drivers stay aware of their surroundings and alert to any dangers.

Kalmar SmartRead**



Automatic Container ID Capture. A smart solution that automatically captures and records the container ID from the roof while the equipment is handling it, no manual data entry, no more missed containers.



Damage Detection Made Easy. Detects and records visible damage to the container roof, helping you stay on top of potential issues before they become problems.



Seamless Integration. SmartRead, in combination with other SmartPort modules, automatically captures data that can be fed straight into your Terminal Operating System, so you always know what's in your yard and where, with minimal risk of human error or ghost containers.



Drive Speed Limitation System. Automatically restricts the speed at which your equipment can be operated, helping to reduce wear and tear as well as fuel consumption.

* Cannot suppress a battery fire

** Installation costs and/or an annual subscription fee may apply.



Kalmar has a range of solutions that will help make your equipment safer, more eco-efficient and sustainable.

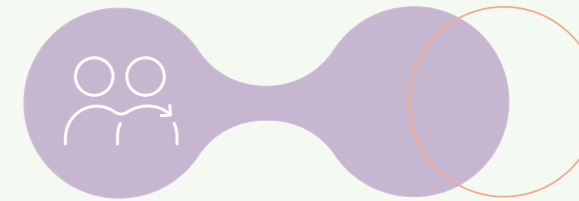


Designed for the driver

Ergonomically designed

Kalmar Electric Reachstackers come fitted with our ergonomically designed EGO cabin. With slim line b-pillars, adjustable seating, steering wheel and control panel, your drivers will benefit from a superior operating environment and visibility.

The Kalmar Electric Reachstacker, with its electrically powered driveline, is quieter inside and outside the cabin, vibrates less than traditional reachstackers and produces no carbon emissions, further enhancing driver comfort.



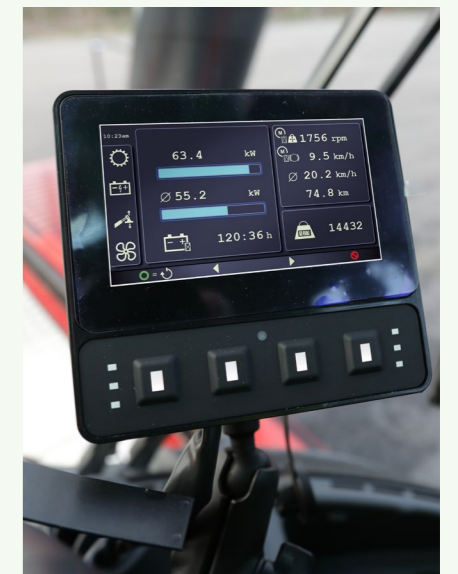
More comfortable

With a choice of comfortable driver seats, a fault safe pedal system and powerful Electronic Climate Control system with smarter controls your operator will benefit from improved ventilation heating and cooling, plus a cabin with superior comfort and lowest noise level inside and outside.



Easy to operate

Our electrically powered reachstacker comes with a wide choice of joysticks, an electronically adjustable work console and side tilting steering wheel. All designed to make operating your reachstacker easier and more efficient.



Extra smart

Our intuitive user interface combines visibility, sound and touch to create a perfectly balanced operating environment with an intelligent colour display at its heart. Advanced diagnostics, battery status overview and smart settings allow improved operational control and optimal opportunity charging planning.



This reachstacker is a dream to drive, with great visibility and easy handling.

m SC 12



Keep moving with Kalmar Services

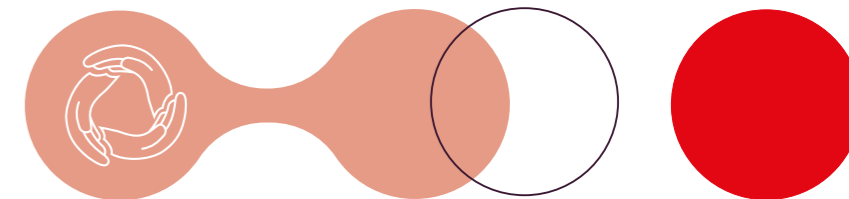
To keep your business moving Kalmar Services offers a range of services that can help you keep your equipment moving optimally.

Kalmar Care

Care that keeps your business moving.

With Kalmar Care you get a flexible service that's built around your business. Including, the experience and knowledge of Kalmar's dedicated staff, coupled with transparency and increased predictability of costs.

Kalmar Care is available in three different service models: our two customisable contracts – Essential Care and Complete Care – and our flexible solution On Demand Care.



Service models:



Essential Care

A maintenance solution to keep your equipment in an optimal condition.



Complete Care

A complete service solution providing piece of mind and maximum equipment uptime.



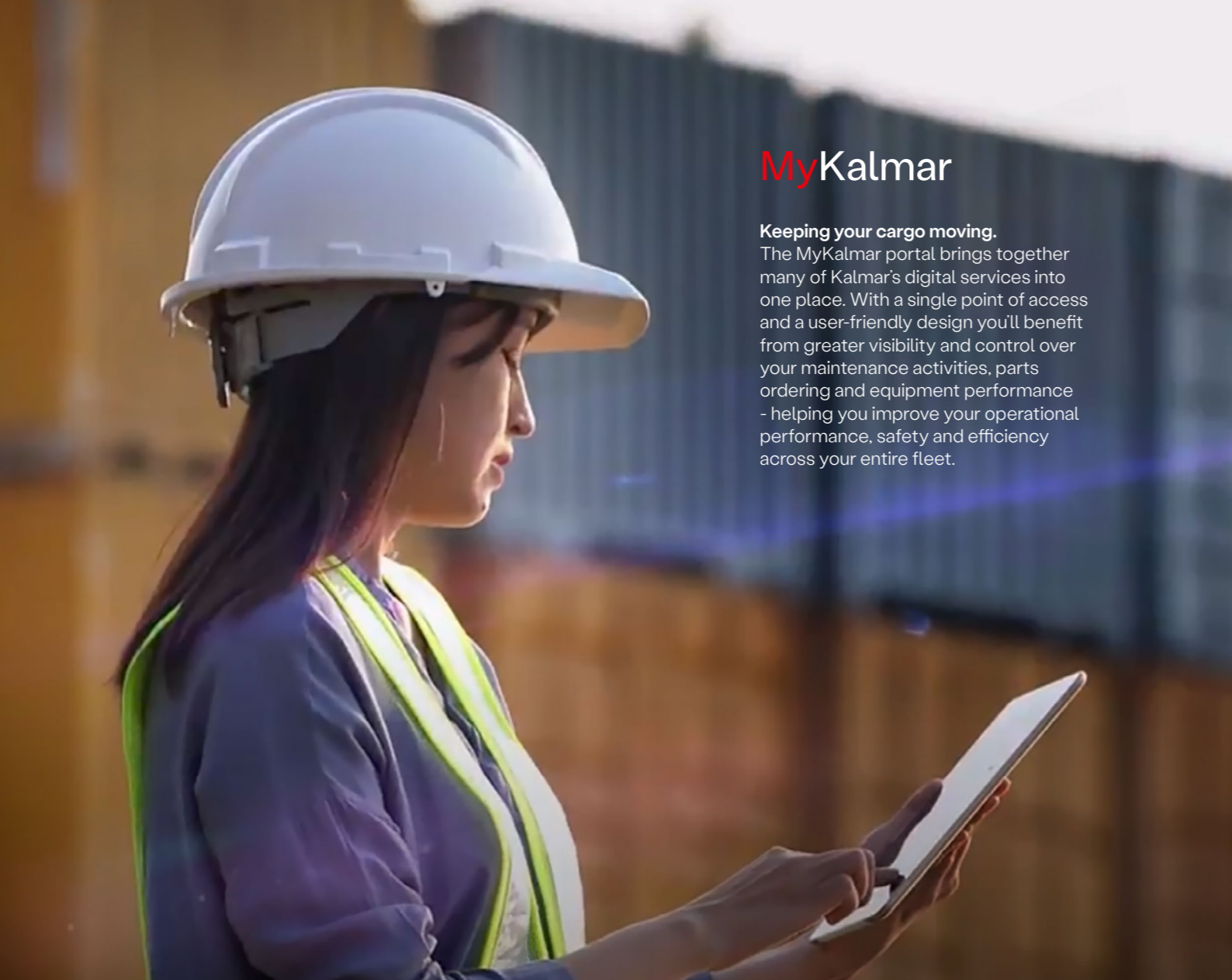
On Demand Care

Top-of-the-line service whenever you need it.

Maintenance Planning	●	●
Preventive Maintenance	●	●
Predictive Maintenance		●
Corrective Maintenance		●
Preventive Spare Parts	●	●
Corrective Spare Parts		●
Lubricants	●	●
MyKalmar	●	●
MyKalmar INSIGHT	●	●
Tyre Maintenance		●
Battery Maintenance		●

● Included ● Optional

Top-of-the-line service
whenever you need it



MyKalmar

Keeping your cargo moving.

The MyKalmar portal brings together many of Kalmar's digital services into one place. With a single point of access and a user-friendly design you'll benefit from greater visibility and control over your maintenance activities, parts ordering and equipment performance - helping you improve your operational performance, safety and efficiency across your entire fleet.

MyKalmar INSIGHT

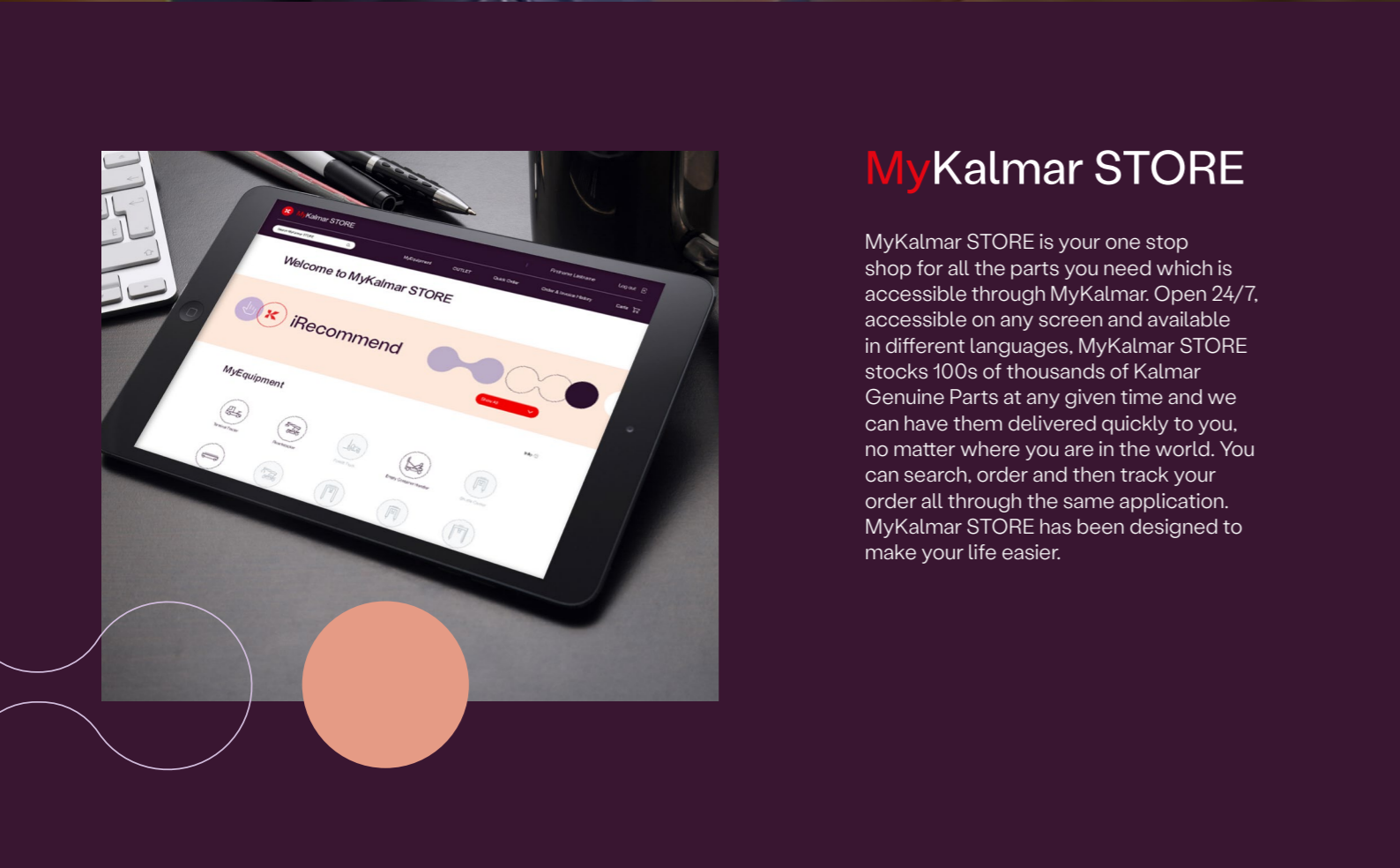
Optimise your operations with Insight.

MyKalmar INSIGHT* is a performance management tool for cargo handling, which gives you an easy to use overview of your fleet operations, by aggregating data from multiple sources, including equipment built by other manufacturers. Review your entire fleet activities, schedule maintenance activities and

order the required parts automatically. All enabling you to take action on real-time information, that will help improve your overall operations immediately. MyKalmar INSIGHT comes fitted and ready to be activated in all new Kalmar equipment, it can also be retrofitted into existing Kalmar equipment or those built by other manufacturers.



*Installation costs and/or an annual subscription fee may apply.



MyKalmar STORE

MyKalmar STORE is your one stop shop for all the parts you need which is accessible through MyKalmar. Open 24/7, accessible on any screen and available in different languages, MyKalmar STORE stocks 100s of thousands of Kalmar Genuine Parts at any given time and we can have them delivered quickly to you, no matter where you are in the world. You can search, order and then track your order all through the same application. MyKalmar STORE has been designed to make your life easier.

Kalmar Training

Enhance your skills.

To get the most out of your new machine our training centre offers a range of courses for both your technicians and operators. Operators can be taught how to drive the machine for optimum performance and minimum waste, and to learn what needs to be checked daily for optimal safety. Technicians can be educated with the knowledge they need to keep your new equipment in top condition in a safe way. Courses are a mix of theory and hands-on experience.



Standard*

Kalmar ERG450S-450S (S = Container - Top Lift)
Kalmar ERG450C-450C (C = Intermodal - Combi Lift)
Kalmar ERG 700 Z-700 (Z = Lift Hook)
Kalmar ERG540A - 540 (A = Industrial)

Norms, Standards and Regulations

- Machinery Directive 2006/42/EC
- Safety Industrial Trucks Standard ISO 3691-2, (EN 1459+A3)
- Safety Low & High Lift Trucks Standard ANSI / ITSDF B56.1
- Stability of Reachstackers Standards ISO 22915-1, -12
- Electrics / Electronics Standard EN 1175:2020
- Electromagnetic Compatibility Directive 2014/30/EC
- Electromagnetic Compatibility Standard EN 12895
- CE-marking (EU/EEA)
- ANSI / ITSDF-marking Forklift Trucks (USA/CAN)
- AS-marking (Australia)
- UKCA-marking (UK)
- Supply of Machinery (Safety) Regulations 2008 (UK)

Chassis

- Strong and durable heavy-duty chassis
- Safe access steps, platform & hand-rails (LHS)
- Long bottom access step (on both sides)
- Lifting eyes and anchor points (front & rear)
- Good rear end visibility of the truck
- Towing pin (rear)

Body

- Steps with anti-slip protection
- Anti slip protection on fenders and tanks
- Rear view mirrors (2x) - rear on front mudguards
- Strong and protective mudguards (front & rear)
- Basic noise insulation for the entire truck

Steer Axle (Rear)

- Kalmar steer axle mounted dual pivot bearings
- Orbitrol power steering with double acting cylinder
- Wheel nut protection on steer tyres

Drive Axle (Front)

- Kessler drive axle with differential and hub reduction
- Wide axle for high side stability (4150 mm)
- Oil-cooled Wet Disc Brakes (WDB)
- High pressure filter (10 µm) for the brakes

Wheels (Tyres & Rims)

- Strong wheels (tyres and rims) in 18.00x25"/PR40 & 18.00x33"

Powertrain

- Traction motor 133 kW cont.
- Pump motor 130 kW cont
- Auxiliary motor 22 kW cont.
- BoschRexroth transmission
- System voltage 666 V (nominal)
- Regenerative braking

Thermal Management System (Lithium-ion)

- Battery Management System (BMS) with CanBus
- Smart controls of cooling and heating units
- TMS with cooling unit, water tank, pump and cooler
- TMS with onboard heating unit and from grid connection
- TMS with passive-active-standby cooling and heating
- TMS cooling of motors, inverters and battery
- TMS heating of motors, inverters, battery, oil and cabin
- Power limitation functions to optimise consumption
- Limp home function at low SOC% (drive speed 8 km/h)

Load-Sensing Hydraulics

- Load-sensing variable piston pumps
- Pumps for boom, spreader, brakes & steering
- Vane pumps for brake & oil cooling (2x)
- Return filters for the work hydraulics (2x/10 µm)
- Hydraulic long-life fine filter with by-pass (5 µm)
- Servo filter for the work hydraulics (10 µm)
- Pressure filter for the brakes (10 µm)
- Regeneration high-speed lifting & extension
- Boom end-damping (in-out/up-down/20-40°)
- Hydraulic tank (700 lit), cooling, breather filter & ORFS-couplings

Lifting Boom

- Strong, durable box-type boom with guide pads
- Boom with 2 lift cylinders & 1 extension cylinder

Attachment

- Top Lift (S), 45 tons, 20'-40', MPS, TWL, 4 lift hooks, sideshift and rotation
- Combi Lift (C), 45 tons, 20'-30'-40', HPS, TWL, 4 lift legs, 4 hooks, end tilt+lock, sideshift & rotation
- Tool Carrier (A), 54 tons
- S-C = 4 floating twistlocks, LED indication lamps and 2 LED work lamps
- S-C = Safety locking, alignment pins (4x) and sensors (4x)
- S-C = Rotation +195/-105 deg (2 motors and 2 brakes)
- S-C = Lift hooks for slings on end beams (4x)
- S = Mechanical Pile Slope MPS ±5 deg
- C = Hydraulic Pile Slope HPS ±5 deg
- Large sideshift (S-C = ±800 mm)

Electrical System 24V

- Battery box 2x12V (24V) & main power switch
- Electric service box on chassis (LHS)
- 2 LED head lights on front fenders (one beam)
- 2 LED working lights on boom
- 2 LED working lights on front edge cabin
- 2 LED rear lights on fenders (when reversing)
- 2 LED working lights on attachment (S + C + A)
- 2 LED position lights on each side
- 2 LED tail lights / brake LED-lights
- 4 LED blinker lights (front-rear/left-right)
- 2 LED flashing brake lights (when reversing)
- 1LED rotating warning beacon
- 1 acoustic signal / reverse alarm (in reverse)
- Speed limitation outside transport mode
- Power battery volt level

Cabin (EGO)

Structure

- Spacious, modern cabin with good ergonomics
- Large windows, good visibility, in all directions
- Manual moveable cabin (stroke 2375 mm)
- Step for roof access
- Instep handle (left side)
- Sliding window on both sides
- Doors with air damper and key lock (L + R)
- Tinted laminated windows

Comfort

- Comfort seat Kalmar, mechanical spring, high back
- Adjustable armrest (RHS) & 2-point safety belt
- Inside rear view mirror (right side)
- Interior lights with fade away function
- Fully adjustable steering wheel incl tilt function
- Fully adjustable colour display
- Electric adjustable operational console with joy-stick, operational buttons & armrest (RHS)
- Power steering wheel with steer knob
- Electric horn
- LED background light for buttons & switches

Safety

- Colour display TFT-7" (17 cm), inside cabin
- Reverse camera, 1x, rear on counter weight
- Speed limit outside transport mode

Controls

- Joystick for boom, spreader & forward / reverse
- Auto rev-up accelerator at lifting/extension
- Electric accelerator for driving
- Double brake pedals (L + R)
- Button for electronic hand brake (on/off)
- Safety override for hydraulic functions (by code)
- Multi-function lever (LHS) horn, gear/direction switch, high/low beam
- Warning - hand brake (on/off) leaving seat
- Hour meter

Climate

- ECC, electronic climate control, powerful cooler, heater and ventilator
- Air-condition incl. fresh air and recirculation filter
- Wipers/washers; dual wipers on front window, single wipers on rear and roof windows

- Interval wiper functions on front, rear and roof

Information Systems

- Colour display & automatic fault analysis
- Menu control with toggle wheel & push buttons
- Electronic safety, overload, scale & synchronized lift functions
- Longitudinal Load Moment Indicator (Pop-Up Menu)
- Longitudinal Load Moment Control (Pop-Up Menu)

Operator menu:

- System voltage
- Travelling speed (km/h or mph)
- Hydraulic oil temperature
- Clock and date
- Load info (tons) & Load Centre info (mm)
- Boom extension & Boom angle
- Operating time (hours)
- Service time indicator (hours)
- Boom angle and Boom extension
- Electronic weight scale functions
- Status of Heating, Ventilation and AC system
- Service indicator
- Container counter with reset function
- Trip computer / statistics
- Acceleration and deceleration mode

Various warning lights & signals:

- Various warning lights & signals:
 - Charging battery
 - Low brake pressure
 - Failure indicator
 - Hydraulic and brake oil temperature
 - Low washer fluid level
 - Low coolant level battery
 - Low coolant level electrical components
 - High coolant temp battery
 - High coolant temp electric components
 - Low power battery volt level
 - Low/high battery cell temp
 - Low/high battery cell volt level/unbalanced power battery

Indicator lamps:

- Direction indication
- Parking brake

Fleet Management

- Equipped with telemetric hardware for MyKalmar INSIGHT

Colour

- Cabin: Iron-Grey RAL 7011
- Chassis, tanks & mudguards: Red RAL 3000
- Boom, attachment & axles: Black RAL 7021
- Rims: Iron-Grey RAL 7011

Documentation and Decals

- Load chart diagram inside cabin
- Machine data sign on chassis incl. load chart
- Warning, tyre pressure & oil pressure stickers
- Information & joystick stickers
- Fuse diagram
- Instruction manual
- Maintenance manual, digitally
- Spare parts catalogue, digitally

Warranty

- Base machine (excl. battery) 12 months / 2000 hours
- Battery warranty 5 years or defined kWh

Options*

Kalmar ERG450S-450S (S = Container - Top Lift)
Kalmar ERG450C-450C (C = Intermodal - Combi Lift)
Kalmar ERG 700 Z-700 (Z = Lift Hook)
Kalmar ERG540A - 540 (A = Industrial)

Chassis

- ERG ranges in Toplift (S), Intermodal (C), Lift Hook (Z), Tool Carrier (A)
- Wheelbases: 6,00 - 6,50 m and 7,00 - 7,50 m

Body

- Extra rear view mirrors (2pcs)
- Storage boxes (2x) left and right tank
- Mud flaps (front or/and rear)

Steer Axle (Rear)

- Steer cylinder spacer (less tyre wear)

Wheels (Tyres & Rims)

- Spare wheels, tyres and rims for 18.00x25"
- Spare wheel and rim 18.00x33"/PR40 (6x), for stronger models with higher lift capacity

Battery

- 400 kWh battery (nominal capacity)
- 533 kWh battery (nominal capacity)
- 800 kWh battery (nominal capacity)

Load-Sensing Hydraulics

- High pressure filter

Attachment

- Tilt function F/R ±2 deg, tilt lock, speed 5 km/h
- Hydraulic Pile Slope, HPS ±5 deg (side tilt), incl tilt lock and speed 5 km/h
- Rotation stop at ±25 deg (incl override switch)
- Automatic extension 20'-40' incl 30' stop
- 2 extra lift eyes, centre of spreader (2 x 22,5 T)
- 4 extra lift eyes, middle of spreader (4 x 11,2 T)
- Soft landing with ultrasonic sensor (less noise)
- Twistlock rubber damper (100 mm longer)
- Extended twistlocks 300 mm (250 mm longer)
- Cylinder extension 20'-40' on standard/Tilt/HPS
- WTP Top Lift (Wide Twl Pos), HPS ±5 deg, 30'-35' stop, TWL = 2260-2448 mm
- Coil ram, 35 tons, coil ID/OD = 500/3000 mm,
- Toplift spreader with 50 ton capacity - (6pcs lifting holes/eyes are included)
- Various industrial lift units, mounted in slave attachments for 20ft

Electrical System 24V

- Radio with CD / MP3 / Bluetooth / DAB
- Extra sockets 2x24V+2x12V (in door columns)
- Extra sockets 2x24V+2x5V USB (door columns)
- Electric air pressure horn
- Height limitation system for lifting boom
- Load centre limitation for lifting boom
- Speed limitation (default 19 km/h, but editable)
- Speed warning at 15km/h
- Extra working light, LED 2x, on front mudguards
- Extra working light, LED 4x, on front mudguards
- Extra working light, LED 2x, on spreader
- Extra working light, LED 2x, middle of boom
- Extra working light, LED 4x, front of boom
- Extra reverse light, LED 2x, on rear light bracket
- Extra rotating beacon, LED, in boom nose front
- Extra rotating beacon, LED, right side on CW
- Extra rotating beacon, LED, left side on CW
- Flash light replacing STD beacon on boom
- Electric heated mirrors, front fender/standard position/top of lamp brackets
- Tyre pressure monitoring system (Bluetooth)

Cabin

Structure

- Hydraulic sliding cabin (stroke 2375 mm), anti-collision function, avoid load hitting cabin (included as standard in Combi and Hook machines)
- Hydraulic elevating cab (stroke 2300 mm) position forward on right side
- Speed limitation depending on cabin position
- Extended rear cabin window 100mm

Comfort

- Seat with air-cushion, heating & 3-p belt
- Seat cover in vinyl
- Head rest for the seat
- Armrest with adjustment (LHS)
- Horizontal dampening/suspension of seat
- Grammer Actimo XL, air-cushion, heat, 3-p belt
- Isringhausen 6830KA/870, air-cush, heat, 3-p belt
- Extra trainer seat incl 2-p safety belt (LHS)
- Bracket for terminal and monitor (RHS)
- Write pad, A4 paper box & reading lamp (RHS)
- Extra rear-view mirror inside cabin
- BeGe 3120 Air cushioned incl. Airvent, set heat and reinforced leather

Controls

- Lever steering incl switch for forward/reverse
- Mini-wheel steering incl F-N-R switch
- Override key switch
- EGO joystick
- Otto Joystick - Universal Grip with OPS / without OPS

Climate

- Sun visor front-roof-rear windows (of black net)
- Sun visor roof window (of reflecting film)

Additional Equipment

- Fire extinguisher 6 kg, powder
- Tool kit
- Central greasing (base truck + steering)
- Central greasing (entire spreader)

Safety

- Reverse camera with 7" single view monitor
- Reverse camera with 7" split view monitor
- Reverse camera with 10" split view monitor
- Forward camera at front of chassis, 1x, above drive axle
- Forward camera front of inner boom / outer boom
- Radar sensors for object detection reward
- Twistlock cameras, 2x, in spreader end beams
- Combi legs camera, 2x, facing down on trailer
- 360° camera system with Pedestrian detection & DVR
- Enhanced Safety Package including:
 - Tyre pressure monitoring system
 - Adjustable speed limiter (default 19 km/h)
 - Seat belt interlock (machine will not go in gear if seat belt is off)

- Front chassis camera, 1x, above drive axle
- Front of outer boom, 1x, facing forward
- Below inner boom, 1x, facing forward
- Twistlock cameras, 2x, in spreader end beams
- Combi legs camera, 2x, facing down on trailer
- Alcolook Draeger in cabin
- Height limitation system for lifting boom, specify height
- Including load centre limitation for lifting boom
- Speed limitation, please specify km/h
- Various speed limitations (with/without load)
- Speed warning at 15km/h
- Speed limitation (default setting 19km/h)
- Automatic fire suppression system (not for battery)

Information Systems

- VDI - Vehicle Data Interface

Fleet Management

- MyKalmar INSIGHT licence (only certified countries)
- MyKalmar INSIGHT Driver Monitor (RFID reader + 10 unique driver tags)
- MyKalmar INSIGHT extra driver tags (10 tags)

Kalmar Load Measurement System

- Semi-automatic weight checking and recording system including time, date and load
- SOLAS compliant (VGM - Verified Gross Mass)

Colour

- Other RAL colour than standard, chassis
- Special and multiple colours, chassis
- Other colour than standard, striping foil cabin
- Reinforced anti-corrosion protection

Documentation and Decals

- Extra set of documentation
- Workshop manuals
- Volvo trouble shooting and repair kit
- Load chart lbs/inch in cab & sign "no riders"
- Documentation on CD or memory stick
- Maintenance manual, printed
- Spare parts catalogue, printed

Training

- Various training packages, for drivers, service, maintenance, software etc
- Contact Kalmar Training Centre for more information and planning

Warranty

- Extended warranty packages available
- Additional warranty packages available:
 - Gold (complete machine): max 5 yr/10.000h
 - Silver (drive line): max 8 yr/16.000h
 - Bronze (structural parts): max 10 yr/20.000h
 - Cobalt (battery): up to 8 yr/16.000h*
- Contact Kalmar for more information

Note*: Data is preliminary and is subject to change.

Specifications*

Models				ERG450-60S5	ERG450-60S5M	ERG450-60S5X
MODEL LIFTING CAPACITY	WB 6m - Container					
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4	tons	45 - 27 - 13	45 - 30 - 15	45 - 35 - 18
	Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3 - Q4	tons			
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1965 - 3815 - 6315	1865 - 3815 - 6315	1865 - 3815 - 6315 - 8815
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3
	Lost load centre, to front face of tyres	X	mm	835	835	935
Wheelbase	L3	mm	6000	6000	6000	
WEIGHTS	Service weight, standard truck		kg	70900	72900	81000
	Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	37100 - 103100	37100 - 103100	38100 - 104100
	Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	41500 - 89400	41500 - 93700	42700 - 105400
	Axle load, rear at load centre L4, unloaded - loaded		kg	33800 - 12800	35800 - 14800	42900 - 21900
Axle load, rear at load centre L5, unloaded - loaded		kg	29400 - 8500	31400 - 8200	38300 - 10600	
DIMENSIONS	Boom angle, min - max		deg	0 - 60	0 - 60	0 - 60
	Boom height, min - max	H3 - H5	mm	4600 - 18200	4600 - 18200	4700 - 18300
	Chassis height - top of boom fixation, max	H2	mm	3925	3925	4025
	Lift height, max	H4	mm	15100	15100	15200
	Boom reach stroke		mm	7000	7000	7000
	Truck height - seat height	H6 - H8	mm	4600 - 2580	4600 - 2580	4700 - 2680
	Overall truck length with boom	L	mm	11300	11300	11300
	Truck width over drive axle	B	mm	4150	4150	4150
	Spreader sideshift	V1	mm	±800 (1600)	±800 (1600)	±800 (1600)
	Spreader rotation		deg	±195/-105	±195/-105	±195/-105
	Ground clearance	min	mm	250	250	300
	Aisle width with 20'-40' container	A1 - A2	mm	11350 - 13600	11350 - 13600	11350 - 13600
	Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	8250 - 9400	8250 - 9400	8250 - 9400
	Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-
WHEELS	Wheels	Number of wheels, front - rear (x = driven)		4* - 2		
	Tyres	Pneumatics, type / pressure (front - rear)	MPa	Diagonal / 1.0		
		Dimensions, front - rear	in	18.00x25 - 40PR	18.00x25 - 40PR	18.00x33 - 40PR
	Rims	Dimensions, front - rear	in	13.00x25 - 2.5	13.00x25 - 2.6	13.00x33 - 2.5
	Track width (front - rear)	S1 - S2	mm	3030 - 2600	3030 - 2600	3030 - 2800
AXLES	Steer axle	Manufacturer, type - designation		Electro-hydraulic servo - steering wheel with orbitrol		
		Steering system		Hydraulic power assisted		
		Driver interface, type		Steering wheel orbitrol and optional joystick control / mini wheel		
		Control valve, manufacturer - type		Danfoss - load sensing		
		Steering cylinder, type		Double acting		
	Drive axle	Manufacturer, type - designation		Kessler D102-PL341 / drive axle with differential and hub reduction		
	Service brakes	Type - affected wheels		Oil cooled wet disc brakes (WDB) / drive wheels		
	Regenerative brake function		30-35% braking with traction motor			
Parking brake	Type - affected wheels		Single dry disc / spring activated - hydraulic release / drive wheels			
HYDRAULICS	Hydraulics	Brand, type		Bosch Rexroth - axial piston variable displacement		
		Load handling function		Load sensing / power on demand / variable piston pumps		
	Oil pressure	Max working pressure	MPa	23.0		
		Hydraulic oil volume	Lit	700		

ERG450-65S5	ERG450-65S5X	ERG450-65S5XS	ERG450-65S6	ERG450-65S6X	ERG450-65S6H	ERG450-65S6HX	ERG450-65S6HXS
WB 6.5m - Container							
45 - 32 - 16	45 - 38 - 21	45 - 38 - 21	45 - 32 - 16 - 9	45 - 38 - 21 - 12	45 - 33 - 18 - 10	45 - 39 - 21 - 13	45 - 39 - 21 - 13
		45 - 41 - 29					45 - 41 - 29 - 18
1965 - 3815 - 6315	1865 - 3815 - 6315	1865 - 3815 - 6315	2265 - 3815 - 6315 - 8815	2165 - 3815 - 6315 - 8815	2965 - 3815 - 6315 - 8815	2865 - 3815 - 6315 - 8815	2865 - 3815 - 6315 - 8815
5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/5 - 5/5 - 4/4 - 2/2	6/5 - 5/5 - 4/4 - 2/2	6/6 - 6/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3
835	935	935	835	935	835	935	935
6500	6500	6500	6500	6500	6500	6500	6500
73000	79800	83800	74000	81000	77000	86000	86000
37500 - 101900	37500 - 101900	41000 - 105400	38500 - 105000	39000 - 105500	41500 - 112800	44000 - 115300	45000 - 116300
41500 - 96400	41700 - 107500	43300 - 111100	42000 - 96900	42700 - 108400	43500 - 100100	46300 - 113800	47300 - 114800
35500 - 16100	42300 - 22900	42800 - 23400	35500 - 14000	42000 - 20500	35500 - 9200	42000 - 15700	41000 - 15700
31500 - 8600	38100 - 10300	38500 - 10700	32000 - 9100	38300 - 10600	33500 - 9900	39700 - 11200	39700 - 11200
0 - 60	0 - 60	0 - 60	0 - 62	0 - 62	0 - 63	0 - 63	0 - 63
4600 - 18200	4700 - 18300	4700 - 18300	4500 - 19250	4600 - 19350	4700 - 20800	4700 - 20900	4700 - 20900
3925	3925	3925	3925	4025	3925	4025	3925
15100	15200	15200	16200	16300	17700	17800	17800
7000	7000	7000	7700	7700	8500	8500	8500
4600 - 2580	4700 - 2675	4700 - 2675	4500 - 2580	4600 - 2680	4700 - 2580	4700 - 2680	4700 - 2680
11800	11800	11700	12100	12100	12800	12800	12800
4150	4150	4150	4150	4150	4150	4150	4150
±800 (1600)	±800 (1600)	±800 (1600)	±800 (1600)	±800 (1600)	±800 (1600)	±800 (1600)	±800 (1600)
±195/-105	±195/-105	±195/-105	±195/-105	±195/-105	±195/-105	±195/-105	±195/-105
250	300	300	250	300	250	300	300
11600 - 13600	11750 - 13600	11750 - 13600	12050 - 13900	12050 - 13900	12450 - 14150	12450 - 14150	12450 - 14150
8650 - 9400	8650 - 9400	8650 - 9400	8650 - 9450	8650 - 9450	8750 - 9450	8750 - 9450	8750 - 9450
-	-	-	-	-	-	-	-
4* - 2							
Diagonal / 1.0							
18.00x25 - 40PR	18.00x33 - 40PR	18.00x33 - 40PR	18.00x25 - 40PR	18.00x33 - 40PR	18.00x25 - 40PR	18.00x33 - 40PR	18.00x33 - 40PR
13.00x25 - 2.5	13.00x33 - 2.5	13.00x33 - 2.5	13.00x25 - 2.5	13.00x33 - 2.5	13.00x25 - 2.5	13.00x33 - 2.5	13.00x33 - 2.5
3030 - 2600	3030 - 2800	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2600	3030 - 2800	3030 - 2800
Electro-hydraulic servo - steering wheel with orbitrol							
Hydraulic power assisted							
Steering wheel orbitrol and optional joystick control / mini wheel							
Danfoss - load sensing							
Double acting							
Kessler D102-PL341 / drive axle with differential and hub reduction							
Oil cooled wet disc brakes (WDB) / drive wheels							
30-35% braking with traction motor							
Single dry disc / spring activated - hydraulic release / drive wheels							
Bosch Rexroth - axial piston variable displacement							
Load sensing / power on demand / variable piston pumps							
23.0							
700							

Note*: Data is preliminary and is subject to change.

Specifications*

Models				ERG450-70S5X	ERG450-70S5XS	ERG450-70S6HXS	ERG450-75S5XS	ERG450-75S6HXS	ERG450-60C5	ERG450-60C5X	ERG450-65C5	ERG450-65C5X	ERG450-65C5XS		
MODEL LIFTING CAPACITY	WB 7-7.5m - Container						WB 7-7.5m - Container			WB 6m - Intermodal		WB 6.5m - Intermodal			
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3 - Q4	tons	45 - 41 - 23	45 - 41 - 23	45 - 41 - 23 - 14	45 - 45 - 26	45 - 45 - 27 - 17	45 - 25 - 10	45 - 32 - 15	45 - 28 - 13	45 - 34 - 17	45 - 34 - 17		
	Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3 - Q4	tons	-	45 - 41 - 31	45 - 41 - 31 - 19	45 - 45 - 34	45 - 45 - 35 - 23	-	-	-	-	45 - 38 - 24		
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1865 - 3815 - 6315	1865 - 3815 - 6315	2865 - 4650 - 7150 - 9650	1865 - 3815 - 6315	2865 - 3815 - 6315 - 8815	1965 - 3815 - 6315	1865 - 3815 - 6315	1965 - 3815 - 6315	1865 - 3815 - 6315			
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	6/6 - 6/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3		
	Lost load centre, to front face of tyres	X	mm	935	935	935	935	935	835	935	835	935	935		
Wheelbase	L3	mm	7000	7000	7000	7500	7500	6000	6000	6500	6500	6500			
WEIGHTS	Service weight, standard truck		kg	82300	82800	87900	85900	90700	77000	85300	77600	84800	87000		
	Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	40000 - 103000	40600 - 103600	45100 - 114500	42500 - 104300	46400 - 114200	43500 - 109500	44500 - 110500	44100 - 108500	44900 - 109300	47000 - 111400		
	Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	44000 - 112800	44600 - 13600	47200 - 116000	46300 - 119800	48500 - 122000	49200 - 93600	50500 - 107900	49400 - 97400	50500 - 109300	52700 - 111500		
	Axle load, rear at load centre L4, unloaded - loaded		kg	42300 - 24300	42200 - 24200	42800 - 18400	43400 - 26600	44300 - 21500	33500 - 12500	40800 - 19800	33500 - 14100	39900 - 20500	40000 - 20600		
	Axle load, rear at load centre L5, unloaded - loaded		kg	38300 - 10500	38200 - 10300	40700 - 12900	39600 - 11100	42200 - 13700	27800 - 8400	34800 - 9400	28200 - 8200	34300 - 9500	34300 - 9500		
DIMENSIONS	Boom angle, min - max		deg	0 - 60	0 - 60	0 - 63	0 - 58	0 - 61	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60		
	Boom height, min - max	H3 - H5	mm	4700 - 18300	4700 - 18300	4700 - 20900	4750 - 18400	4750 - 21000	4600 - 18200	4600 - 18200	4600 - 18200	4700 - 18300	4700 - 18200		
	Chassis height - top of boom fixation, max	H2	mm	4025	4050	4025	4025	4025	3925	4050	3925	4025	4025		
	Lift height, max	H4	mm	15100	15100	17800	15200	17800	14900	15000	14900	15000	14900		
	Boom reach stroke		mm	7000	7000	8500	7000	8500	7000	7000	7000	7000	7000		
	Truck height - seat height	H6 - H8	mm	4700 - 2680	4700 - 2680	4700 - 2680	4750 - 2700	4750 - 2680	4600 - 2580	4600 - 2680	4600 - 2580	4700 - 2675	4700 - 2680		
	Overall truck length with boom	L	mm	12300	12300	13300	12800	13800	11300	11300	11800	11800	11800		
	Truck width over drive axle	B	mm	4150	4150	4150	4150	4150	4150	4150	4150	4150	4150		
	Spreader sideshift	V1	mm	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)	=+/-800 (1600)		
	Spreader rotation		deg	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105	=+195/-105		
	Ground clearance	min	mm	300	300	300	300	300	250	300	250	300	300		
	Aisle width with 20'-40' container	A1 - A2	mm	12250 - 13600	12250 - 13600	12950 - 14350	12650 - 13600	13450 - 14350	11350 - 13600	11350 - 13600	11750 - 13600	11750 - 13600	11750 - 13600		
	Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	9150 - 9400	9150 - 9400	9150 - 9500	9550 - 9500	9550 - 9500	8250 - 9400	8250 - 9400	8650 - 9400	8650 - 9400	8650 - 9400		
Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-	-	-	-	-	-	-	-			
WHEELS	Wheels	Number of wheels, front - rear (x = driven)		4* - 2			4* - 2			4* - 2			4* - 2		
	Tyres	Pneumatics, type / pressure (front - rear)	MPa	Diagonal / 1.0			Diagonal / 1.0			Diagonal / 1.0			Diagonal / 1.0		
		Dimensions, front - rear	in	18.00x33 - 40PR			18.00x33 - 40PR			18.00x33 - 40PR			18.00x33 - 40PR		
	Rims	Dimensions, front - rear	in	13.00x33 - 2.5			13.00x33 - 2.5			13.00x33 - 2.5			13.00x33 - 2.5		
	Track width (front - rear)	S1 - S2	mm	3030 - 2800			3030 - 2800			3030 - 2800			3030 - 2800		
AXLES	Steer axle	Manufacturer, type - designation		Electro-hydraulic servo - steering wheel with orbitrol			Electro-hydraulic servo - steering wheel with orbitrol			Electro-hydraulic servo - steering wheel with orbitrol			Electro-hydraulic servo - steering wheel with orbitrol		
		Steering system		Hydraulic power assisted			Hydraulic power assisted			Hydraulic power assisted			Hydraulic power assisted		
		Driver interface, type		Steering wheel orbitrol and optional joystick control / mini wheel			Steering wheel orbitrol and optional joystick control / mini wheel			Steering wheel orbitrol and optional joystick control / mini wheel			Steering wheel orbitrol and optional joystick control / mini wheel		
		Control valve, manufacturer - type		Danfoss - load sensing			Danfoss - load sensing			Danfoss - load sensing			Danfoss - load sensing		
		Steering cylinder, type		Double acting			Double acting			Double acting			Double acting		
	Drive axle	Manufacturer, type - designation		Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction		
	Service brakes	Type - affected wheels		Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels		
	Regenerative brake function		30-35% braking with traction motor			30-35% braking with traction motor			30-35% braking with traction motor			30-35% braking with traction motor			
Parking brake	Type - affected wheels		Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels			
HYDRAULICS	Hydraulics	Brand, type		Bosch Rexroth - axial piston variable displacement			Bosch Rexroth - axial piston variable displacement			Bosch Rexroth - axial piston variable displacement			Bosch Rexroth - axial piston variable displacement		
		Load handling function		Load sensing / power on demand / variable piston pumps			Load sensing / power on demand / variable piston pumps			Load sensing / power on demand / variable piston pumps			Load sensing / power on demand / variable piston pumps		
	Oil pressure	Max working pressure	MPa	23.0			23.0			23.0			23.0		
		Hydraulic oil volume	Lit	700			700			700			700		

Note*: Data is preliminary and is subject to change.

Specifications*

Models				ERG450-70C5X	ERG450-70C5XS	ERG450-75C5XS	ERG540-65A5X	ERG540-65A5XS	ERG700-75ZX	ERG700-75ZXS
MODEL LIFTING CAPACITY	WB 7-7.5m - Intermodal						WB 6 - 6.5m - Industrial handling, tool carrier		WB 7.5m - Lift hook	
	Lift capacity, row 1-2-3-4	Q1 - Q2 - Q3- Q4	tons	45 - 38 - 20	45 - 38 - 20	45 - 43 - 24	54 - 38 - 25 - 17	54 - 38 - 25 - 17	70-60-45-30-22	70-60-45-30-22
	Lift capacity, row 1-2-3-4 (with jacks)	Q1 - Q2 - Q3- Q4	tons	-	45 - 38 - 27	45 - 45 - 32	-	54 - 45 - 34 - 23	-	70-60-45-39-28
	Load centre, from front face of tyres, row 1-2-3-4	L4 - L5 - L6 - L7	mm	1865 - 3815 - 6315			2000 - 4000 - 6000 - 8000		1500 - 2000 - 4000 - 6000 - 8000	
	Stacking capacity, in container row 1-2-3-4 of 8'6" / 9'6"		mm	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	5/5 - 5/4 - 4/3	-	-	-	-
	Lost load centre, to front face of tyres	X	mm	935	935	935	935	935	935	935
Wheelbase	L3	mm	7000	7000	7500	6500	6500	7500	7500	
WEIGHTS	Service weight, standard truck		kg	86800	88300	91900	76000	77500	77500	78500
	Axle load, front at load centre L4, unloaded - loaded	(no jacks)	kg	46000 - 109000	47500 - 110500	48500 - 110300	33000 - 110300	34500 - 111800	33100 - 125800	34100 - 126800
	Axle load, front at load centre L5, unloaded - loaded	(no jacks)	kg	51300 - 115100	52800 - 116600	53500 - 123700	-	-	-	-
	Axle load, rear at load centre L4, unloaded - loaded		kg	40800 - 22800	40800 - 22800	43400 - 26600	43000 - 18400	43000 - 18400	44400 - 21700	44400 - 21700
Axle load, rear at load centre L5, unloaded - loaded		kg	35500 - 9700	35500 - 9700	38400 - 11200	-	-	-	-	
DIMENSIONS	Boom angle, min - max		deg	0 - 60	0 - 60	0 - 58	0 - 60	0 - 60	0 - 58	0 - 58
	Boom height, min - max	H3 - H5	mm	4700 - 18300	4700 - 18300	4750 - 18400	4700 - 18250	4700 - 18300	4750 - 18400	4750 - 18400
	Chassis height - top of boom fixation, max	H2	mm	4025	4025	4025	4025	4025	4025	4025
	Lift height, max	H4	mm	14900	14900	15000	15300	15300	15300	15300
	Boom reach stroke		mm	7000	7000	7000	7000	7000	7000	7000
	Truck height - seat height	H6 - H8	mm	4700 - 2680	4700 - 2680	4750 - 2700	4700 - 2680	4700 - 2680	4750 - 2680	4750 - 2680
	Overall truck length with boom	L	mm	12300	12300	12800	11400	11400	12000	12000
	Truck width over drive axle	B	mm	4150	4150	4150	4100	4150	4150	4150
	Spreader sideshift	V1	mm	±/-800 (1600)	±/-800 (1600)	±/-800 (1600)	±/-450	±/-450	-	-
	Spreader rotation		deg	±195/-105	±195/-105	±195/-105	±195/-105	±195/-105	360 / 360 (endless)*	360 / 360 (endless)*
	Ground clearance	min	mm	300	300	300	300	300	300	300
	Aisle width with 20'-40' container	A1 - A2	mm	12250 - 13600	12250 - 13600	12650 - 13600	-	-	-	-
	Turning radius, outer with 20'-40' container (at 90 degree turn)	R1 - R3	mm	9150 - 9400	9150 - 9400	9550 - 9500	-	-	-	-
	Turning radius, outer (at 90 degree turn)	R1	mm	-	-	-	8650	8650	9550	9550
WHEELS	Wheels	Number of wheels, front - rear (x = driven)		4* - 2			4* - 2		4* - 2	
	Tyres	Pneumatics, type / pressure (front - rear)	MPa	Diagonal / 1.0			Diagonal / 1.0		Diagonal / 1.0	
		Dimensions, front - rear	in	18.00x33"			18.00x33 - 40PR		18.00x33 - 40PR	
	Rims	Dimensions, front - rear	in	18.00x33 - 40PR			13.00x33 - 2.5		13.00x33 - 2.5	
	Track width (front - rear)	S1 - S2	mm	3030 - 2800			3030 - 2800		3030 - 2800	
AXLES	Steer axle	Manufacturer, type - designation		Electro-hydraulic servo - steering wheel with orbitrol			Electro-hydraulic servo - steering wheel with orbitrol		Electro-hydraulic servo - steering wheel with orbitrol	
		Steering system		Hydraulic power assisted			Hydraulic power assisted		Hydraulic power assisted	
		Driver interface, type		Steering wheel orbitrol and optional joystick control / mini wheel			Steering wheel orbitrol and optional joystick control / mini wheel		Steering wheel orbitrol and optional joystick control / mini wheel	
		Control valve, manufacturer - type		Danfoss - load sensing			Danfoss - load sensing		Danfoss - load sensing	
		Steering cylinder, type		Double acting			Double acting		Double acting	
	Drive axle	Manufacturer, type - designation		Kessler D102-PL341 / drive axle with differential and hub reduction			Kessler D102-PL341 / drive axle with differential and hub reduction		Kessler D102-PL341 / drive axle with differential and hub reduction	
	Service brakes	Type - affected wheels		Oil cooled wet disc brakes (WDB) / drive wheels			Oil cooled wet disc brakes (WDB) / drive wheels		Oil cooled wet disc brakes (WDB) / drive wheels	
	Regenerative brake function		30-35% braking with traction motor			30-35% braking with traction motor		30-35% braking with traction motor		
Parking brake	Type - affected wheels		Single dry disc / spring activated - hydraulic release / drive wheels			Single dry disc / spring activated - hydraulic release / drive wheels		Single dry disc / spring activated - hydraulic release / drive wheels		
HYDRAULICS	Hydraulics	Brand, type		Bosch Rexroth - axial piston variable displacement			Bosch Rexroth - axial piston variable displacement		Bosch Rexroth - axial piston variable displacement	
		Load handling function		Load sensing / power on demand / variable piston pumps			Load sensing / power on demand / variable piston pumps		Load sensing / power on demand / variable piston pumps	
	Oil pressure	Max working pressure	MPa	23.0			23.0		23.0	
		Hydraulic oil volume	Lit	700			700		700	

Note*: Data is preliminary and is subject to change.

Performance*

Models			ERG450-60S5	ERG450-60S5M	ERG450-60S5X	ERG450-65S5	
			WB 6m - Container			WB 6.5m - Container	
SPEED	Travel speed, forward - reverse	Unloaded	km/h	24 - 24	24 - 24	21 - 21	24 - 24
		At rated load	km/h	24 - 24	24 - 24	21 - 21	24 - 24
	Lifting speed	Unloaded	m/s		0,42		0,42
		At 50 % of rated load	m/s		0,25		0,25
Lowering speed	Unloaded	m/s		0,36		0,36	
	At rated load	m/s		0,36		0,36	
POWER	Gradeability, boost function (max)	Unloaded	%	11	10	10	10
		At rated load	%	6	6	6	6
	Gradeability, 1-5km/h (Cont)	Unloaded	%	9	9	9	9
		At rated load	%	5	5	5	5
	Drawbar pull, max boost		kN	75	75	84	75
Drawbar pull, max continuous		kN	65	65	72	65	
SOUND	Noise level, inside (with EDM*)	EN12053, LpAZ	dB(A)		65 - 67		65 - 67
	Noise level, outside (with EDM*)	EN12053, LWAZ	dB(A)		99 -102		99 -102
	Noise level, outside (with EDM*)	2000/14/EC, LWA	dB(A)		100 - 102		100 - 102

ERG450-65S5X	ERG450-65S5XS	ERG450-65S6	ERG450-65S6X	ERG450-65S6H	ERG450-65S6HX	ERG450-65S6HXS	ERG450-70S5X	ERG450-70S5XS	ERG450-70S6HXS
WB 6.5m - Container						WB 7-7.5m - Container			
21 - 21	21 - 21	24 - 24	21 - 21	24 - 24	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21
21 - 21	21 - 21	24 - 24	21 - 21	24 - 24	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21
	0,42			0,42				0,42	
	0,25			0,25				0,25	
	0,36			0,36				0,36	
	0,36			0,36				0,36	
10	10	10	9	10	9	9	9	10	9
6	6	6	5	5	5	5	5	6	6
9	8	9	8	8	7	7	8	9	8
5	5	5	4	5	4	4	4	5	5
85	84	75	84	75	84	84	84	84	84
73	72	65	72	65	72	72	72	72	72
	65 - 67		65 - 67					65 - 67	
	99 -102		99 -102					99 -102	
	100 - 102		100 - 102					100 - 102	

Models			ERG450-75S5XS	ERG450-75S6HXS	ERG450-60C5	ERG450-60C5X	
			WB 7-7.5m - Container		WB 6m - Intermodal		
SPEED	Travel speed, forward - reverse	Unloaded	km/h	21 - 21	21 - 21	24 - 24	21 - 21
		At rated load	km/h	21 - 21	21 - 21	24 - 24	21 - 21
	Lifting speed	Unloaded	m/s		0,42	0,42	0,42
		At 50 % of rated load	m/s		0,25	0,25	0,25
Lowering speed	Unloaded	m/s		0,36	0,36	0,36	
	At rated load	m/s		0,36	0,36	0,36	
POWER	Gradeability, boost function (max)	Unloaded	%	10	9	10	10
		At rated load	%	6	5	5	6
	Gradeability, 1-5km/h (Cont)	Unloaded	%	8	8	8	8
		At rated load	%	4	5	5	5
	Drawbar pull, max boost		kN	84	84	75	84
Drawbar pull, max continuous		kN	72	72	65	72	
SOUND	Noise level, inside (with EDM*)	EN12053, LpAZ	dB(A)		65 - 67		65 - 67
	Noise level, outside (with EDM*)	EN12053, LWAZ	dB(A)		99 -102		99 -102
	Noise level, outside (with EDM*)	2000/14/EC, LWA	dB(A)		100 - 102		100 - 102

ERG450-65C5	ERG450-65C5X	ERG450-65C5XS	ERG450-70C5X	ERG450-70C5XS	ERG450-75C5XS	ERG540-65A5X	ERG540-65A5XS	ERG700-75ZX	ERG700-75ZXS
WB 6.5m - Intermodal			WB 7-7.5m - Intermodal			WB 6 - 6.5m - Industrial handling, tool carrier		WB 7.5m - Lift hook	
24 - 24	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21
24 - 24	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21	21 - 21
	0,42			0,42			0,42		0,42
	0,25			0,25			0,25		0,25
	0,36			0,36			0,36		0,36
	0,36			0,36			0,36		0,36
9	10	9	9	9	9	10	10	11	11
5	6	6	6	6	5	6	6	6	6
7	8	8	8	8	8	9	8	9	9
4	5	5	5	5	5	5	5	5	5
75	84	84	84	84	84	84	84	84	84
65	72	72	72	72	72	72	72	72	72
	65 - 67			65 - 67			65 - 67		65 - 67
	99 -102			99 -102			99 -102		99 -102
	100 - 102			100 - 102			100 - 102		100 - 102

Note*: Data is preliminary and is subject to change.

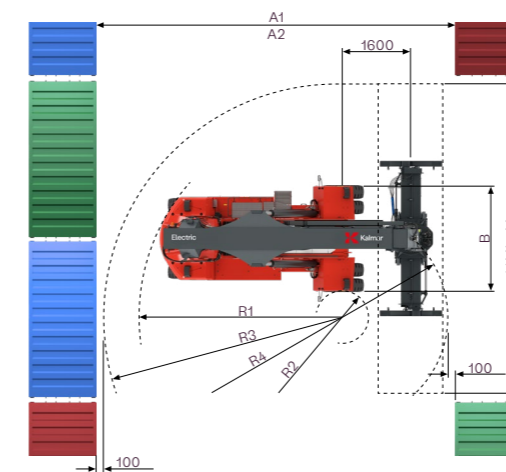
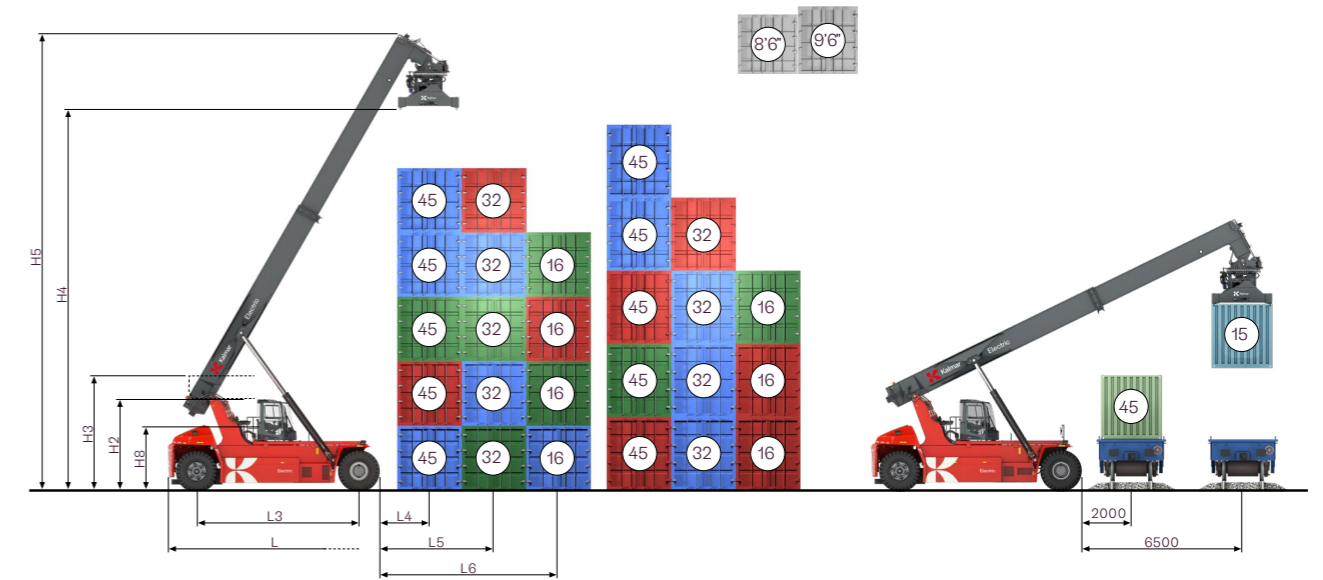


Powertrain¹

MODELS	Models	ERG450-450	ERG450-450	ERG540-540	ERG700	
			WB 6.00- 7.50m / Container	WB 6.00- 7.50m / Intermodal	WB 6 - 6.5m - Industrial handling, tool carrier	WB 6.00- 7.50m / Lift hook
	Handling types	Toplift S-range		Intermodal C-range	Industrial Z-range	
	Wheelbase (L3)	mm	6000 - 7500	6000 - 7500	6000 - 7500	
MOTOR	Manufacturer - motor / inverter brand	Bosch-Rexroth / eLion range / CanBus				
	Motor - model / type	Permanent Magnet Synchronous Motor				
	Motor - Inverter, type of cooling	Water-based cooling				
	Protection rating (IP-rating)	IP6K7 and IP6K9K				
	Regenerative brake function	Yes / charging of battery				
	Acceleration settings / power programming	In 10 steps (1 - 10)				
	Retardation settings / brake programming	In 10 steps (1 - 10)				
	Traction drive motor, max power (S1 continuous duty) @ rated speed	kW	133	133	133	133
	Traction drive motor, max power (S2 short time duty) @ rated speed	kW	358	358	358	358
	Hydraulic pump motor, max power (S1 continuous duty) @ rated speed	kW	130	130	130	130
	Hydraulic pump motor, max power (S2 short time duty) @ rated speed	kW	242	242	242	242
	Auxiliary motor, max power (S1 continuous duty) @ rated speed	kW	22	22	22	22
	Auxiliary motor, max power (S2 short time duty) @ rated speed	kW	44	44	44	44
	DRIVE	Manufacturer - transmission brand	Bosch-Rexroth			
Transmission - type designation		1-speed / speed reduction				
Manufacturer - drive axle brand		Kessler				
Drive axle - type designation		D102-PL341 / differential + hub reduction				
BATTERY (Lithium-Ion) Gen 2	Energy consumption, normal driving, average values ²	kWh/h	Lower: 50 / Medium: 58 / Higher: 68			
	Energy consumption, according EN16796	kWh/h	TBD			
BATTERY (Lithium-Ion) Gen 2	Battery technology type / number of units	Lithium-Ion (LFP) integral - 3, 4, and 6 units				
	System nominal voltage / nominal energy capacity	V / kWh	666 / 267	666 / 267	666 / 267	666 / 267
	Battery unit, cooling / heating	Water-based cooling / heating				
	Battery nominal energy capacity (min-max)	kWh	400 / 533 / 800	400 / 533 / 800	400 / 533 / 800	400 / 533 / 800
	Battery usable energy capacity (min-max)	kWh	340 / 453 / 680	340 / 453 / 680	340 / 453 / 680	340 / 453 / 680
	System nominal voltage	V	666	666	666	666
	Charging power, max	kW	350	350	350	350
	Max. charging current	(A - V)	500A - 750V			
Charging heather connection	400V / 32A / 3-PHASE / NE					
Charging inlet standard	CCS2					

- Notes:
1. Technical data is preliminary and is subject to change.
 2. Energy consumption; low, medium or high intensity duty cycles.

Lifting and stacking*



* These diagrams are intended for illustrative purposes only, serving as visual guides to the measurements shown.



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